

FINAL YEAR PROJECT REPORT
DIPLOMA IN MECHANICAL ENGINEERING
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SHAH ALAM
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" THE ATOMIZATION OF A LATEX SOLUTION "

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1.1 INTRODUCTION

Atomization is a relatively new technique and have a broad in the industries nowadays. It is a process of breaking up of fluid (feed) into droplets. The combination with 'spray' and 'dry' in the atomization field, made the atomization process become more competitive. The range of products suitable for atomization continue to expand.

In this field, the range of droplets sizes produced by this process is between 20 to 500 microns. For the process of atomization is to be achieved, a suitable increase in specific surface area of the liquid via efficient contracting final separation of the phase must occur. The drop size distribution can be determine using a photography method.

1.2 THE AIR BLAST ATOMIZER

The instrument used for atomization is known as an atomizer.

The atomizer consists of five major components that are:

- i) Liquid nozzle (connected to liquid supply)
- ii) Air nozzle (prefilmer)
- iii) Axial deflector
- iv) Deflector housing
- v) Outer air nozzle

For assembling purposes, other components are required, these components are:

- i) Liquid nozzle locknut
- ii) Grub screw
- iii) Centralizing web
- iv) Nut and washer

Note:

1) For further detail of the atomizer component, refer to previous report titled "Modification And Fabrication Of Air Blast Atomizer" by En. Sohaimi Subahir 1981.

2) No modification is made on the atomizer.